To: Avey, Lance[Avey.Lance@epa.gov]
From: Miller, Ken
Sent: Wed 12/16/2015 10:25:25 PM
Subject: RE: Hourly SO2 emissions information
AECOM Model Comparison.pdf
DNR Model Comparison.pdf

Lance,

Just a quick follow-up. You had asked whether the high concentration areas were in roughly the same place when the models were rerun with the EMC-derived velocities, but I hadn't plotted any of the results yet so I didn't know. Attached are side-by-side comparisons for both the DNR and AECOM models, showing modeled design values and violating receptors for the modeling as it was submitted (i.e., with the original velocities) and rerun using the EMC-derived velocities. The patterns are consistent, there are just more violating receptors and hence larger high concentration areas for the models that use the EMC-derived velocities.

Regards,

Ken

Ken Miller, P.G.

Environmental Scientist

Interdisciplinary Environmental Clinic

Washington University School of Law

One Brookings Drive - Campus Box 1120

St. Louis, MO 63130

314-935-6368 (phone)

314-935-5171 (fax)

kenneth.miller@wustl.edu

From: Avey, Lance [mailto:Avey.Lance@epa.gov]
Sent: Wednesday, December 16, 2015 3:01 PM
To: Miller, Ken
Subject: RE: Hourly SO2 emissions information

Thanks Ken,

I downloaded the modeling the model files from the shared folder, nice and easy. I will send off my calculated velocities for comparison sometime tomorrow.

Lance

Lance Avey

EPA Region 7

11201 Renner Boulevard

Lenexa, Kansas 66219

(913) 551-7809

avey.lance@epa.gov

From: Miller, Ken [mailto:kenneth.miller@wustl.edu]
Sent: Wednesday, December 16, 2015 2:50 PM
To: Avey, Lance <Avey.Lance@epa.gov>
Subject: RE: Hourly SO2 emissions information

Lance,

Thanks for taking the time to speak with me today. I've uploaded the files for both the AECOM and DNR models with the Emissions Modeling Clearinghouse-derived velocities substituted in the hourly rate files to a shared folder on Box. You should be able to access it via this link:

https://wustl.box.com/s/tnipd7rq9owxb2j5v98aefcjvigbevie

If you have any problems accessing the files let me know. I look forward to hearing whether your velocity calculations match mine.

Regards,

Ken

Ken Miller, P.G.

Environmental Scientist

Interdisciplinary Environmental Clinic

Washington University School of Law

One Brookings Drive - Campus Box 1120

St. Louis, MO 63130

314-935-6368 (phone)

314-935-5171 (fax)

kenneth.miller@wustl.edu

From: Miller, Ken
Sent: Wednesday, December 16, 2015 2:05 PM
To: Avey, Lance (Avey.Lance@epa.gov)

Subject: RE: Hourly SO2 emissions information

Lance,

It might be helpful for you to have the attached spreadsheet open when we discuss Labadie. Talk to you in a few.

Ken

Ken Miller, P.G.

Environmental Scientist

Interdisciplinary Environmental Clinic

Washington University School of Law

One Brookings Drive - Campus Box 1120

St. Louis, MO 63130

314-935-6368 (phone)

314-935-5171 (fax)

kenneth.miller@wustl.edu

From: Miller, Ken
Sent: Wednesday, December 16, 2015 9:11 AM
To: Avey, Lance
Subject: RE: Hourly SO2 emissions information

OK, no problem. I'll call you a little after 2 then.

Thanks,

Ken

Ken Miller, P.G.

Environmental Scientist

Interdisciplinary Environmental Clinic

Washington University School of Law

One Brookings Drive - Campus Box 1120

St. Louis, MO 63130

314-935-6368 (phone)

314-935-5171 (fax)

kenneth.miller@wustl.edu

Please consider the environment before printing.

From: Avey, Lance [mailto:Avey.Lance@epa.gov]
Sent: Wednesday, December 16, 2015 9:09 AM
To: Miller, Ken
Subject: RE: Hourly SO2 emissions information

Looks like I will be in and out of meetings this morning. Anytime after 2pm this afternoon works good.

Thanks

Lance

Lance Avey

EPA Region 7

11201 Renner Boulevard

Lenexa, Kansas 66219

(913) 551-7809

avey.lance@epa.gov

From: Miller, Ken [mailto:kenneth.miller@wustl.edu]
Sent: Wednesday, December 16, 2015 9:02 AM
To: Avey, Lance <Avey.Lance@epa.gov>
Subject: RE: Hourly SO2 emissions information

Lance,

I'll call you at 11 if that works for you.

Thanks,

Ken

Ken Miller, P.G.

Environmental Scientist

Interdisciplinary Environmental Clinic

Washington University School of Law

One Brookings Drive - Campus Box 1120

St. Louis, MO 63130

314-935-6368 (phone)

314-935-5171 (fax)

kenneth.miller@wustl.edu

Please consider the environment before printing.

From: Avey, Lance [mailto:Avey.Lance@epa.gov]
Sent: Wednesday, December 16, 2015 8:05 AM
To: Miller, Ken
Cc: Hawkins, Andy
Subject: RE: Hourly SO2 emissions information

Hi Ken,

Both Andy and I are reviewing modeling for Ameren Labadie. Andy will be in and out of the office with end of year leave, but I am available to chat this week at your convenience.

Thanks

Lance

Lance Avey

EPA Region 7

11201 Renner Boulevard

Lenexa, Kansas 66219

(913) 551-7809

avey.lance@epa.gov

From: Miller, Ken [mailto:kenneth.miller@wustl.edu]
Sent: Tuesday, December 15, 2015 4:46 PM
To: Avey, Lance <Avey.Lance@epa.gov>
Subject: RE: Hourly SO2 emissions information

Lance,

Are you reviewing the modeling that was submitted by the Missouri DNR in support of its unclassifiable designation recommendation for Ameren's Labadie plant or is that Andy Hawkins? I wanted to chat briefly with whomever is reviewing the modeling about the issue I raised the other day regarding the hourly stack exit velocities Ameren's consultant used.

Thanks,

Ken

Ken Miller, P.G.

Environmental Scientist

Interdisciplinary Environmental Clinic

Washington University School of Law

One Brookings Drive - Campus Box 1120

St. Louis, MO 63130

314-935-6368 (phone)

314-935-5171 (fax)

kenneth.miller@wustl.edu

From: Avey, Lance [mailto:Avey.Lance@epa.gov]
Sent: Thursday, December 10, 2015 11:44 AM
To: Miller, Ken
Cc: Hawkins, Andy; Jay, Michael
Subject: Hourly SO2 emissions information

Hi Ken,

Below is a link to Hourly SO2 data collected by States using CEMS for the 2012-2014 period:

http://www3.epa.gov/ttn/chief/emch/so2naaqs/index.html

You can see that the exit flow rates are available, but note that stack temperature data is not required to be submitted, and thus is not in CAMD. However, if you possess the modeling inputs for Ameren's AERMOD modeling, you would be able to find information (both stack temps and exit velocities) in there.

Let me know of any further questions,

Thanks

Lance

Lance Avey

EPA Region 7

11201 Renner Boulevard

Lenexa, Kansas 66219

(913) 551-7809

avey.lance@epa.gov